



Markets Gateway Roadmap

As of October 20, 2020

- Added information for Fast Start Offer Verification

Action Required	Deadline	Who May Be Affected
Fast Start Offer Verification enhancements (dependent on FERC)	Effective on December 1 12 a.m.	Markets Gateway UI & XML Users
Submit Hourly Differentiated Segmented Ramp Rates for resources in both the DA and RT	Effective on January 5, 2021	Markets Gateway UI & XML Users



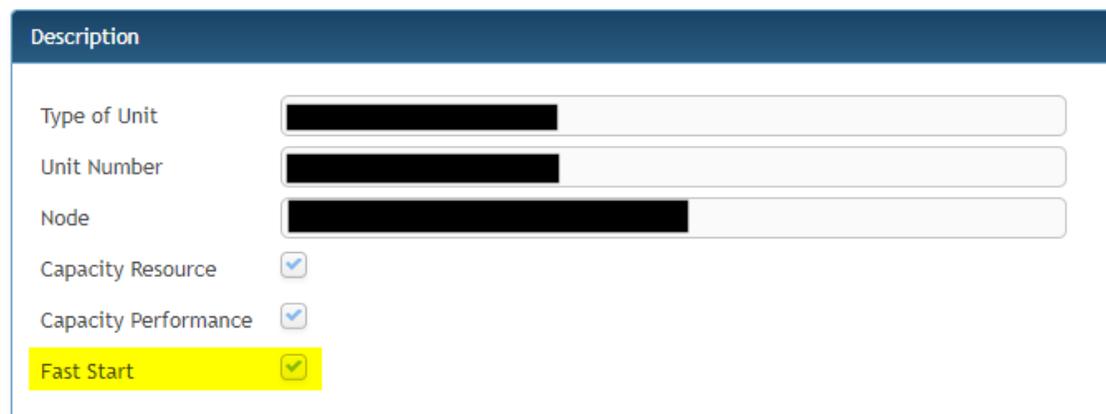
	2020						2021				
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Fast Start Offer Verification Enh.					◆ Train: October 15		◆ Production: December 1				
Hourly Differentiated Segmented Ramp Rates							◆ Train: December 3	◆ Production: January 5			

- PJM plans to provide more flexibility for complex resources (like combined cycles) in their next generation energy market (nGEM)
- Since nGEM will not be available for several years, the Modeling Generation Senior Task Force has requested that PJM develop modeling options which can be implemented in the near-term
- The remaining near term item planned is:
 - Provide market participants with the ability to submit Hourly Differentiated Segmented Ramp Rates for resources in both the DA and RT Markets. Hourly updates follow Intraday Offers (IDO) rules
 - **Target schedule: FERC approved – Effective date of January 5, 2021**
 - **TRN – December 3, Production – January 5**

- FERC Order 831 required PJM to verify incremental offers greater than \$1000, and was implemented in 2017
- For Fast Start, FERC directed PJM to enhance this process to include the incremental offer plus amortized commitment costs (startup and no-load costs for gen, shutdown cost for ELR) - now known as the “Composite Offer”
- Fast start resources with a Composite Offer over \$1,000/MWh, will be screened and validated each time a variable affecting the Composite Offer calculation is changed
- Parameters that may affect the Composite Offer calculation are:
 - Incremental Offer
 - Startup Cost
 - No Load Cost
 - Economic Maximum MW
 - Minimum Run Time
 - Shutdown Cost for ELRs Only

- If FERC provides a clean ruling by October 16, Fast Start will go live on November 1. If a clean order is not received by October 16 then the go-live date will be re-evaluated. **FERC did not approve – go-live target moved to December 1**
- Target dates are: Train – October 15, Production – December 1
- External Interface Specification Guide and XSD were made available on the Markets Gateway Tools page on October 15
- A Fast Start Refresher Education session was provided on October 19, from 9:00 to 12:00. This session has been recorded and is available on the Markets Gateway tools page - <https://www.pjm.com/markets-and-operations/etools/markets-gateway.aspx>

- New Flag denotes if the unit is capable of being a Fast Start Resource
- Flag is an input to determine if the unit will be eligible for Fast Start Pricing and integer relaxation
- Only applicable for Generators on a unit level (not schedule)
 - Generator > Unit > Details
 - All Economic Load Response Resources are considered Fast Start capable

A screenshot of a web interface showing the 'Description' section for a unit. The section has a dark blue header with the word 'Description' in white. Below the header, there are five rows of information. The first three rows are text input fields: 'Type of Unit', 'Unit Number', and 'Node', each with a blacked-out value. The last two rows are checkboxes: 'Capacity Resource' and 'Capacity Performance', both of which are checked. The 'Fast Start' checkbox is also checked and is highlighted with a yellow background.

Description	
Type of Unit	[Redacted]
Unit Number	[Redacted]
Node	[Redacted]
Capacity Resource	<input checked="" type="checkbox"/>
Capacity Performance	<input checked="" type="checkbox"/>
Fast Start	<input checked="" type="checkbox"/>

- New display added to Markets Gateway to provide information if the Composite Energy Offer is above \$1,000/MWh for Fast Start Resources
- Display details
 - Read-only display
 - All inputs used to calculate the composite offer
 - Composite Energy Offer calculated at Ecomax
 - Results of automated validation of Startup Cost and No Load Cost (For Generators only)
 - Shutdown Cost for Economic Load Response
 - Results can be viewed by participant or individual unit level
 - Supports XML

- Bilaterals
- Con Edison
- Demand
- ▶ Demand Response
- ▼ Generator
 - Unit
 - Schedules**
 - Dispatch Lambda
 - Market Results
 - Regulation Market

Market Day Portfolio

Refresh

- Offers
- Offer Updates
- Detail
- Detail Updates
- Manager
- Selection
- Availability Update
- Restriction Information
- TPS Schedule Switch
- Fuel Price Exceptions
- Composite Offer Verification**

ALL UNITS

Ho ^	Location	Schedule	Calculated Composite Offer	Noload Incremental Valid	Cold Startup Cost Valid	Noload Cost	Cold Startup Cost	Incremental Offer At Economic Maximum	Economic Maximum	Minimum Runtime	Hot Startup Time	Notification Time	Use Slope
Show all	Show All	Show	Show all	Show All		Show all	Show all	Show all	Show all	Show all	Show all	Show all	Show All



Economic Load Response Energy Offer Example

- Composite Offer greater than > \$1000/MWh with PJM approved shutdown cost of \$200
- HE 13: CSP entered shutdown cost \$1200 and incremental offer \$26 for 1MW.
Composite offer >\$1000, Shutdown cost >\$200 – not valid. Offer is not used to set LMP
- HE 16: CSP entered shutdown cost \$300 and incremental offer \$900 for 1MW.
Composite offer >\$1000, Shutdown cost >\$200 – not valid. Offer is not used to set LMP
- HE 17: CSP entered shutdown cost \$100 and incremental offer \$950 for 1MW.
Composite offer >\$1000, Shutdown cost <\$200 – valid. Offer \$1,050 is used to set LMP

Market Day Portfolio

Hour	Location	Schedule	Calculated Composite Offer	Shutdown Cost Valid	Shutdown Cost	Incremental Offer At Economic Maximum	Economic Maximum	Minimum Downtime	Notification Time
13		Sced2 (2)	1226	No	1200	26	1	1	
16		Sced2 (2)	1200	No	300	900	1	1	
17		Sced2 (2)	1050	Yes	100	950	1	1	



Product Details

[Markets Gateway](#) allows users to submit information and obtain data needed to conduct business in the Day-Ahead, Regulation and Synchronized Reserve Markets.

Key Product Features

- View Market Results
- Manage Generation and Load Response Portfolios
- Manage Ancillary Service Data
- Manage Market Offers and Transactions